

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended): A security paper comprising at least two fibrous paper plies, wherein each of said plies is a material layer having a fibrous structure comprising fibers,
_____ the first ply being an external ply that includes a first authentication element provided within a region of non-zero thickness of the first ply, said first authentication element comprising at least one of (i) authentication particles, and (ii) authentication fibers different from the fibers of the fibrous structure of the first ply, said first authentication element of the first ply being substantially absent from the second ply, and
_____ the other ply, the second ply, comprising at least one of:
_____ a reinforcing element substantially absent from the first ply, said reinforcing element being chosen from materials that improve the mechanical strength; and
_____ a second authentication element provided within an area of non-zero thickness of the second ply, wherein the first authentication element of the first ply is absent from the second ply said second authentication element comprising at least one of (i) authentication particles, and (ii) authentication fibers different from the fibers of the fibrous structure of the second ply,
_____ wherein each of said first and second authentication elements is selected from the group consisting of iridescent particles, luminescent fibers, luminescent particles, fluorescent fibers, fluorescent particles, phosphorescent fibers, phosphorescent particles, colored fibers, colored

particles, thermochromic fibers, thermochromic particles, fibers that react to electromagnetic fields, particles that react to electromagnetic fields, and mixtures thereof.

2. (Previously presented): The security paper as claimed in claim 1, wherein the second ply comprises a reinforcing element, and said reinforcing element is chosen from synthetic fibers, especially polyester or fibers, polyamide fibers, natural textile fibers, especially abaca, hemp, flax, Chinook fibers, and mixtures thereof.

3. (Currently amended): The security paper as claimed in claim 2, wherein the reinforcing element is chosen from polyester fibers, said polyester fibers are polyethylene terephthalate fibers, ~~in particular they and said polyester fibers~~ are present in an amount of between 10 and 20 parts by dry weight per 100 parts of the other fibers of said second ply.

4. (Currently amended): The security paper as claimed in claim 1, wherein the ~~second ply comprises a second authentication element, and said second authentication element of said first the second ply, and where appropriate that of said second ply,~~ can be detected optically.

5-8. (Canceled)

9. (Previously presented): The security paper as claimed in claim 1, wherein said second ply comprises a reinforcing element, and said reinforcing element also has an authentication function.

10. (Previously presented): The security paper as claimed in claim 9, wherein said reinforcing element constitutes said second authentication element of said second ply.

11. (Previously presented): The security paper as claimed in claim 1, wherein said second ply comprises a reinforcing element and said security paper has a tear index of 10 mN.m²/g or higher.

12. (Currently amended): The security paper as claimed in claim 1, wherein the fibers of the fiber structures of the plies are based on cotton fibers.

13. (Currently amended): The security paper as claimed in claim 1, which comprises ~~three fibrous plies, said external first ply having an authentication element, said second ply being central and having said reinforcing element, and the third ply being another external~~ a third ply having an authentication element that may be different from that of said first ply a reinforcing element, wherein the third ply is central and the second ply is another external ply. (original, renaming third as second)

14. (Previously presented): The security paper as claimed in claim 1, which is a banknote paper.

15. (Currently amended): ~~A process for manufacturing a~~ The security paper as claimed in claim 1, wherein said plies ~~are~~ have been assembled wet.

16. (Canceled): ~~The~~ A process for manufacturing a security paper as claimed in ~~claim 15, wherein said external first ply includes a watermark and is formed on a cylinder mold machine that includes a watermark wire~~ claim 1, comprising assembling said plies wet.

17. (Currently amended): The security paper as claimed in ~~claim 7~~ claim 1, wherein ~~said reactive element~~ at least one of said first and second authentication element is chosen from substances that react to electromagnetic fields of the microwave type.

18-22. (Canceled)

23. (New): The security paper as claimed in claim 1, wherein at least one of the first and second authentication elements comprises flakes.

24. (New): The security paper as claimed in claim 1, wherein the second authentication element of the second ply is substantially absent from the first ply.

25. (New): A security paper comprising at least two fibrous paper plies, wherein each of said plies is a material layer having a fibrous structure comprising fibers,

the first ply being an external ply that includes a first authentication element provided within a region of non-zero thickness of the first ply, said first authentication element being a watermark, said first authentication element of the first ply being substantially absent from the other ply, and

the other ply, the second ply, comprising at least one of:

~~— a reinforcing element substantially absent from the first ply, said reinforcing element being chosen from materials that improve the mechanical strength; and~~

~~— a second authentication element provided within an area of non-zero thickness of the second ply, wherein the first authentication element of the first ply is absent from the second ply~~
fibers different from the fibers of the fibrous structure of the second ply, said reinforcing element being selected from the group consisting of synthetic fibers, natural textile fibers, and mixtures thereof,

wherein the reinforcing element is such that the paper has a mechanical strength higher than a mechanical strength of a paper having identical weight in g/m² and identical composition except without the reinforcing element.

26. (New): The security paper as claimed in claim 25, wherein the reinforcing element is chosen from polyester fibers, polyamide fibers, abaca, hemp, flax, Chinook fibers, and mixtures thereof.

27. (New): The security paper as claimed in claim 25, wherein the reinforcing element is chosen from polyester fibers, said polyester fibers are polyethylene terephthalate fibers, and said polyester fibers are present in an amount of between 10 and 20 parts by dry weight per 100 parts of the other fibers of said second ply.

28. (New): The security paper as claimed in claim 25, wherein the second ply comprises a second authentication element.

29. (New) The security paper as claimed in claim 28, wherein said second authentication element is selected from the group consisting of iridescent particles, luminescent fibers, luminescent particles, fluorescent fibers, fluorescent particles, phosphorescent fibers, phosphorescent particles, colored fibers, colored particles, thermochromic fibers, thermochromic particles, fibers that react to electromagnetic fields, particles that react to electromagnetic fields, and mixtures thereof.

30. (New): The security paper as claimed in claim 25, wherein said external first ply has a thickness substantially greater than that of said second ply.

31. (New): The security paper as claimed in claim 25, wherein said reinforcing element also has an authentication function.

32. (New): The security paper as claimed in claim 25, wherein said security paper has a tear index of 10 mN.m²/g or higher.

33. (New): The security paper as claimed in claim 25, wherein the fibers of the fiber structures of the plies are cotton fibers.

34. (New): The security paper as claimed in claim 25, which comprises a third ply having an authentication element, wherein the second ply is central and the third ply is another external ply.

35. (New): The security paper as claimed in claim 25, which is a banknote paper.

36. (New): The security paper as claimed in claim 25, wherein said plies have been assembled wet.

37. (New): The security paper as claimed in claim 36, wherein said external first ply including the watermark has been formed on a cylinder-mold machine that includes a watermark wire.

38. (New): A process for manufacturing a security paper as claimed in claim 25, comprising assembling said plies wet.

39. (New): The process for manufacturing a security paper as claimed in claim 38, wherein said external first ply including the watermark is formed on a cylinder-mold machine that includes a watermark wire.